Download for free at openupresources.org.

4-2: Learning Goals

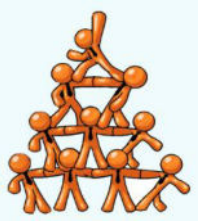
- Let’s explore ways to think about division.

Download for free at openupresources.org.

4-2-1: A Division Expression

Here is an expression: 20÷4.

What are some ways to think about this expression? Describe at least two meanings you think it could have.

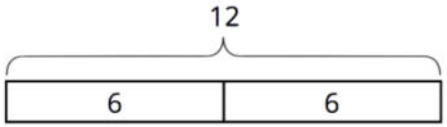


Download for free at openupresources.org.

4-2-2: Bags of Almonds

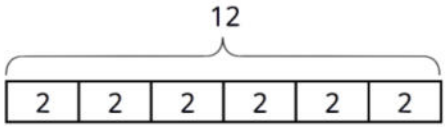
A baker has 12 pounds of almonds. She puts them in bags, so that each bag has the same weight.

1. Clare and Tyler drew diagrams and wrote equations to show how they were thinking about $12 \div 6$.



$\_\_\_ \cdot 6 = 12$

Clare's diagram and equation



$6 \cdot \_\_\_ = 12$

Tyler's diagram and equation

How do you think Clare and Tyler thought about $12 \div 6$? Explain what each diagram and each part of each equation (especially the missing number) might mean in the context of the bags of almonds.

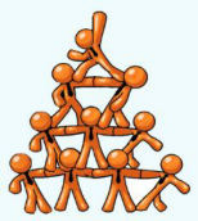
Pause here for a class discussion.

2. Explain what each division expression could mean in the context of the bags of almonds. Then draw a diagram and write a multiplication equation to show how you are thinking about the expression.

   a. $12 \div 4$

   b. $12 \div 2$

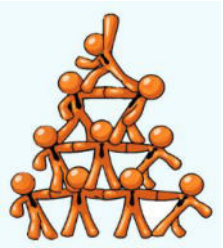
   c. $12 \div \frac{1}{2}$



Download for free at openupresources.org.

4-2: Lesson Synthesis

- How can we interpret 20÷8?
- Suppose we interpret it as “how many groups of 8 are in 20?”. How might we draw a diagram to show this? What multiplication equation can we write?
- If we think of it as “how much is in each group if there are 20 in 8 groups?”, how would the diagram be different?



Download for free at openupresources.org.

4-2: Learning Targets

- When given a division equation, I can write a multiplication equation that represents the same situation.
- I can explain two ways of interpreting a division expression such as 27÷3.
- I can explain how multiplication and division are related.

Download for free at openupresources.org.

4-2-3: Groups on a Field Trip

1. During a field trip, 60 students are put into equal-sized groups.

   a. Describe two ways to interpret $60 \div 5$ in this context.

   b. Find the quotient.

   c. Explain what the quotient would mean in each of the two interpretations you described.

2. Consider the division expression $7\frac{1}{2} \div 2$. Select **all** multiplication equations that correspond to this division expression.

   A. $2 \cdot ? = 7\frac{1}{2}$

   B. $7\frac{1}{2} \cdot ? = 2$

   C. $2 \cdot 7\frac{1}{2} = ?$

   D. $? \cdot 7\frac{1}{2} = 2$

   E. $? \cdot 2 = 7\frac{1}{2}$